NORYL™ RESIN PX2938

REGION ASIA

DESCRIPTION

NORYL PX2938 resin is a 20% glass fiber reinforced blend of polyphenylene ether (PPE) + polystyrene (PS). This injection molding and extrusion grade contains non-brominated, non-chlorinated flame retardant and carries a UL94 flame rating of V0 at 0.75mm. NORYL PX2938 resin exhibits high heat resistance, high impact strength, dimensional stability, hydrolytic stability, and very low moisture absorption. This material is an excellent candidate for industrial applications such as cooling fans.

GENERAL INFORMATION	
Features	Flame Retardant, Hydrolytic Stability, Low Warpage, Non-Brominated, Non-Chlorinated, Non-Halogenated, Good Stiffness, Good dimensional stability, High Stiffness, High Strength, Amorphous, Low Shrinkage, Low Moisture Absorption, Low Specific Gravity
Fillers	Glass Fiber
Polymer Types	Polyphenylene Ether + PS (PPE+PS)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Water Management, Construction
Electrical and Electronics	Electrical Devices and Displays, Electrical Components and Infrastructure
Healthcare	Patient Testing

TYPICAL PROPERTY VALUES

Revision 20211029

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield	107	MPa	SABIC - Japan Method
Tensile Strain, break	8 – 8	%	SABIC - Japan Method
Flexural Stress	143	MPa	ASTM D790
Flexural Modulus	5640	MPa	ASTM D790
Hardness, Rockwell R	127	-	ASTM D785
IMPACT [1]			
Izod Impact, notched, 23°C	87	J/m	ASTM D256
Izod Impact, notched, -30°C	85	J/m	ASTM D256
THERMAL [1]			
HDT, 1.82 MPa, 6.4 mm, unannealed	143	°C	ASTM D648
CTE, -30°C to 30°C	0.000027 – 0.000044	1/°C	TMA
PHYSICAL [1]			
Specific Gravity	1.26	-	ASTM D792
Water Absorption, (23°C/24hrs)	0.06	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm [2]	0.2 – 0.4	%	SABIC method
Melt Flow Rate, 300°C/5.0 kgf	19.8	g/10 min	ASTM D1238
INJECTION MOLDING [3]			
Drying Temperature	110 – 120	°C	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	8	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	300 – 325	°C	
Nozzle Temperature	300 – 325	°C	
Front - Zone 3 Temperature	290 – 325	°C	
Middle - Zone 2 Temperature	275 – 320	°C	
Rear - Zone 1 Temperature	265 – 315	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	20 – 100	rpm	
Shot to Cylinder Size	30 – 70	%	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

DISCLAIMER